REMARKS

In the Office Action, claims 1 and 2 were rejected under 35 U.S.C. 103(a) as obvious over Richter et al. (6,218,761) in view of Niimi (5,744,889), and claim 4 was rejected as obvious over Richter et al. in view of Niimi and further in view of Raad (6,578,681) and Savage et al. (3,042,822).

Applicants have amended claim 1 in a manner consistent with the specification to correct any remaining typographical errors, as well as to include that: (a) the electric motor is for operation at 42 volts; (b) the carbon brushes (11) have identical trapezoidal sections and the laminates (17) have identical trapezoidal sections; (c) each of the carbon brushes (11) is as wide as two laminates (17) plus a single insulation layer (18) between the laminates (17); (d) the carbon brushes (11) and the laminates (17) have corresponding sides that have substantially the same angle of inclination; and (e) the carbon brushes (11) have a resistivity of 300 to 400 μOm. Support for this amendment is found in the detailed description at pages 2-4 of the specification and within drawing Figures 1 and 2, and the resulting claim 1 now includes limitations previously in claims 1, 2 and 4.

With this amendment, independent claim 1 is distinguishable over the prior art. The Examiner has lumped together a group of references in an attempt to recreate the teaching of the present application. However, the references do not address or solve the same problem indicated and solved by the present claimed invention.

The examiner acknowledges that Richter et al. does not show the carbon brushes and the laminates having identical trapezoidal sections, and that neither Richter et al. or Niimi teaches carbon brushes for operating an electric motor at 42 volts having a resistivity of 300-400 micro-ohm. Indeed claim 1 as amended requires

the brushes to have an identical trapezoidal shape, the laminates to have an identical trapezoidal shape, and the brushes and laminates to have corresponding sides that have substantially the same angle of inclination.

In Niimi, when turning the commutator, the corner of the carbon brush being closest to the wave will contact the next lamina first. This can be seen in FIG. 1 with respect to the next adjacent laminate 18. Thus, the lower right corner of the carbon brush 12E as shown in FIG. 1 will be contacted first from the next laminate 18, resulting in high abrasion. Also, the brushes of Niimi are not twice the width of the laminate plus a single insulation layer between two laminates. Not only do these discrepancies lead to greater abrasion at the carbon brush in Niimi, but the problem arising in *fuel pumps* driven with 42 volt electric motors has not been detected by Niimi or by the other references.

The desire to secure the largest possible service life with voltages higher than 12 volts is expressed in Applicants' application and solved by the structure recited in amended claim 1, *by departing from the teachings and solution provided in Niimi.* The amended claim provides for greater specificity with respect to the relative shape and size of the carbon brushes and laminates, and specifically calls for their sides having corresponding substantially similar angles of inclination. The greater relative width and substantially common angle of inclination of the sides of the trapezoidal brushes and laminates for use *within a fuel medium* and *with a 42 volt electric motor* are *not* taught, alone or in combination by the cited references. Also, the mention within Richter et al. of a retarder system that may be useful for a brushless DC alternator, a brushless DC starter, and other particular devices that are unlike the presently claimed fuel pump, does not rise to the level of a proper teaching that would support a rejection for obviousness on the combination of several references.

Thus, in combination with the remarks submitted in prior responses on behalf of this application, it is respectfully submitted that Applicants' claimed subject matter is neither anticipated or obvious in view of the prior art. Nor is there any indication that one of ordinary skill in the art seeking to design a low current, 42 volt fuel pump having a motor through which fuel flows would have been motivated to look to the teachings of high current starter motors that are not constructed to permit fuel to flow through the motor, or to other dissimilar references that sought to solve different problems.

The above amendments to claim 1 are fully in keeping with the subject matter disclosed and described in the specification, and the fact that the claims have at all times referred to a fuel pump makes it unlikely that such amendments would necessitate another search by the Examiner. In accordance with the above amendments and remarks, Applicants request consideration and entry of the amendments to claim 1, and withdrawal of the final rejections. Applicants submit that with such amendments, independent claim 1 is patentable and should be allowed, and claims 2-5 have been canceled. If there are any remaining issues in this application, Applicants urge the Examiner to contact the undersigned attorney at the number listed below.

Applicants believe that no further fee is due with this response, however, the Commissioner is authorized to charge any fee deficiency due for the filing of this paper to deposit account number 50-2455.

Respectfully submitted,

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